

## ADDITIONS TO THE FLORA OF CALIFORNIA.

HERBERT L. MASON

With the increase of accessibility of many of the more remote parts of California, botanical exploration has been advancing rapidly. New things are constantly being found to offer encouragement to the collector and lend fascination to his travels. Following are two such plants recently found by the writer and apparently not reported elsewhere by botanists.

*Lupinus peirsoni* n.sp. Perennial, much branched from the base, stems 3-6 dm. high; herbage white-silky throughout; leaves long-petioled, leaflets 7, unequal, 2-5 cm. long, oblanceolate, rounded and somewhat mucronulate at the apex; inflorescence a strict spike on an elongated scape, spike 4-10 cm. long, the lowermost flowers whorled, the upper scattered; bracts deciduous, somewhat rufous-silky; pedicels short, stout; calyx 2-lipped, the lips entire or somewhat obscurely denticulate at the apex, 8 mm. long, campanulate; corolla yellow, the banner orbicular-ovate, notched at the apex, sides recurved. 12 mm. long, 9 mm. wide, claw short-triangular, with a deep median fold, only the apex reflexed about 45 degrees from the axis of the flowers; wings 11 mm. long, enclosing the keel; keel ciliate in the middle portion only or above; pistil with long silky pubescence; ovules 3-5.

In loose talus soil of Rock Creek Cañon at the lower edge of the Piñon pine belt, alt. 4250 feet, Los Angeles Co., California; H. L. Mason 3026, April 27, 1926, type.

*Lupinus peirsoni* is a very striking member of the genus with its many erect close spikes of yellow flowers standing out above a rounded mass of silvery white foliage. It grows in the loose talus soil formed by the weathering away of the dry hills on the desert side of the San Gabriel Mountains. Its roots are deeply buried, due to the constant and rapid accumulation of soil about the plant, and its crown is diversely branched many inches below the present soil level. It gives me great pleasure to dedicate this species to Mr. Frank Peirson of Pasadena, California, to whom I am indebted for many favors and many a pleasurable trip in Southern California.

*DODECATHÉON HENDERSONI* var. *yosemitiana* n. var. Plant 10-20 cm. high growing in dense tufts; storage roots many, short-oblong, resembling rice grains, pink to red; crown short, often disc-like; herbage glabrous; leaves short-spatulate to narrowly oblanceolate, 3-5 cm. long, 2-15 mm. wide, narrowed to a membranous petiole about half the length of the blade, margin often a hyaline band; scape 1-8 flowered, glabrous throughout; corolla white, rarely rose-purple, 5-merous; androecium deep purple, the filaments united into a narrow tube, anthers equaling or subequaling the filament tube; capsule exceeding the calyx, operculately dehiscent.

Headwaters of Yosemite Creek near Porcupine flat, Tioga Road, alt. 8000 feet, July 24, 1922; H. L. Mason 322, type. "Kings River

country, one-half mile beyond J. O. Pass, alt. 9000 feet, July 12, 1922, C. Flinn". Kaiser Peak, 10,000 feet, A. L. Grant 1011.

Dodecatheon hendersoni and its varieties usually occur in the foothills of the Sierra Nevada and in the Coast Ranges in the upper Sonoran zone and the lower part of the Transition zone. Altitudinally the group ranges to about 5000 feet where it is displaced by *D. jeffreyi*. It is therefore with some misgiving that I describe this plant from the Canadian and Hudsonian zones as a mere variety of *D. hendersoni*. The plant grows in dense tufts. It produces bulblets very abundantly and reproduces freely by them. Transplanting experiments on this variety have shown it to grow and bloom freely at higher altitudes, but it seems unable to cope with the hot dry conditions that prevail at lower altitudes. In these experiments, plants were taken from Porcupine Flat to Tuolumne Meadows and to Mather. The former locality is 8500 feet altitude and the latter 4700 feet.

#### THE BOTANICAL EXPLORERS OF CALIFORNIA.—IV.

WILLIS LINN JEPSON

George Dexter Butler

In the spring of 1880 the California stage coach, drawn by four horses, south-bound from Ashland, Oregon, carried one day as passengers, two botanists engaged in a botanical reconnaissance of the Pacific Coast with especial reference to the coniferae. One of these men was Dr. George Engelmann of St. Louis, the other Professor Charles Sargent of the Arnold Arboretum at Jamaica Plain in eastern Massachusetts. As the straining horses drew the coach heavily up the steep grade of the Siskiyou Mountains the two travelers conversed on the composition of the forest through which they were passing. Finally the summit was reached and when the trotting horses took the downward slope into Siskiyou County, Dr. Engelmann remarked: "I have written George Butler and I am sure he will meet us at Montague station; that is not far from Yreka." When they arrived at Montague there was no Mr. Butler. The two travelers continued their southward journey into the Great Valley of California.

At that time George D. Butler had been resident in Siskiyou County only a short time. He was born in Morris, Grundy County, Illinois, August 17th, 1850, though his early boyhood belongs to Bureau County. Later he attended the University of Iowa at Iowa City. He studied law, was admitted to the bar in Iowa, but did not begin to practice at once. After the fashion of many young lawyers he took up the teaching profession as a stepping stone to the law. He began to teach in Arkansas and in Indian Territory, developing during this period a botanical correspondence with Dr. George Engelmann of St. Louis, who received from his correspondent, amongst other things, a new *Isoetes*, which he named *Isoetes Butleri*.

Seized by the spirit of adventure Mr. Butler went west to California and followed various occupations such as teaching, running